## NOTE: The record immediately below is your case

Dialog eLink: Order File History 15/25/1 (Item 1 from file: 350) DIALOG(R)File 350:

**Derwent WPIX** 

(c) 2008 The Thomson Corporation. All rights reserved.

0013820989 & & Drawing available WPI Acc no: 2003-768270/200372 XRPX Acc No: N2003-615434

Refrigerator, stops fan which cools compressor, when difference between detected inlet and outlet temperature of evaporator exceeds predetermined level

 $Patent\ Assignee:\ TOKYO\ SHIBAURA\ ELECTRIC\ CO\ (TOKE);\ TOSHIBA\ KK\ (TOKE)\ Inventor:\ HORIE\ M;$ 

SAKUMA T; SARUTA S; TAKAGI K; TAKAGI Y; YAMASHITA; YAMASHITA J

Patent Family (7 patents, 8 & countries)

| Patent Number     | Kind | Date     | Update | Туре |
|-------------------|------|----------|--------|------|
| WO<br>2003083388  | A1   | 20031009 | 200372 | В    |
| JP 2003287333     | A    | 20031010 | 200376 | Е    |
| JP 2003287334     | A    | 20031010 | 200376 | Е    |
| EP 1496322        | A1   | 20050112 | 200504 | Е    |
| KR 2004094875     | A    | 20041110 | 200519 | Е    |
| US<br>20050223722 | A1   | 20051013 | 200567 | Е    |
| CN 1643317        | A    | 20050720 | 200575 | Е    |

WO 2003083388 Local Applications (no., kind, date): WO 2003JP3775 A 20030327; JP 200293671 A 20020329; JP 200293672 A 20020329; EP 2003715460 A 20030327; WO 2003JP3775 A 20030327; KR 2004715304 A 20040924; WO 2003JP3775 A 20030327; US 2005509637 A 20050420; CN 2003807229 A 20030327 Priority Applications (no., kind, date): JP 200293671 A 20020329; JP 200293672 A 20020329

Alerting Abstract WO A1 NOVELTY - A pair of sensors detect the temperature at the inlet and outlet of the evaporators, respectively. The fan which cools the compressor is stopped, when the difference between the detected inlet and outlet temperatures, exceeds a predetermined level. USE - Refrigerator. ADVANTAGE - A refrigerator exhibiting a high initial cooling performance after turning on power is obtained. DESCRIPTION OF DRAWINGS - The figure shows a flow chart explaining the operation of refrigerator. (Drawing includes non- English language text).

Dialog eLink: Order File History 26/25/22 (Item 22 from file: 350) DIALOG(R)File 350: Derwent WPIX

(c) 2008 The Thomson Corporation. All rights reserved.

0007710319 & & Drawing available WPI Acc no: 1996-332754/199633 XRPX Acc No: N1996-280471

Air conditioning system contg evaporator and blower compressor clutch controlling - adjusting clutch disengaging temp e.t. to higher temp if floe blower speed is selected by user and adjusting to lower

temp if high blower speed is set

Patent Assignee: CHRYSLER CORP (CHRY)

Inventor: AGAR B E; BAKER G L; BROM E; JAKUBIEC S M

Patent Family (1 patents, 1 & countries)

| Patent<br>Number | Kind | Date     | Update | Туре |
|------------------|------|----------|--------|------|
| US<br>5533353    | A    | 19960709 | 199633 | В    |

US 5533353 Local Applications (no., kind, date): US 1994357505 A 19941216 Priority Applications (no., kind, date): US 1994357505 A 19941216

Alerting Abstract US A The method involves monitoring a temp at the evaporator, followed by determining an average min temp based on the monitored temp. The clutch is disengaged when the monitored temp decreases to a first control temp. The clutch is then engaged when the monitored temp increases to a second control temp, then followed by comparing the average min temp to a first predetermined temp. Further the method includes adjusting the first control temp in response to the comparison between the min average temp and the first predetermined tem so as to maintain the average temp within a particular range. USE/ADVANTAGE - For providing variable control of clutch of compressor in air conditioner. Optimised cooling performance, while maintaining colder outlet temps at higher blower speed.

Dialog eLink: Order File History 26/25/25 (Item 25 from

file: 350) DIALOG(R)File 350: Derwent WPIX

(c) 2008 The Thomson Corporation. All rights reserved.

0007332499 & & Drawing available WPI Acc no: 1995-

396254/199551

Refrigerator - has control device to drive cooling fan and circulation fan at detected

ambient temperature

Patent Assignee: TOSHIBA KK (TOKE)

Inventor: ANDO T

Patent Family (1 patents, 1 & countries)

| Patent<br>Number | Kind | Date | Update | Туре |
|------------------|------|------|--------|------|
|------------------|------|------|--------|------|

| JP<br>7260313 | A | 19951013 | 199551 | В |
|---------------|---|----------|--------|---|
| ,200010       |   |          |        | l |

JP 7260313 Local Applications (no., kind, date): JP 199450301 A 19940322 Priority Applications (no., kind, date): JP 199450301 A 19940322

Alerting Abstract JP A The refrigerator includes a control circuit (20). The ambient air temperature is detected by a temperature detector. If the detector air temperature is higher than nominal value, the cooling fan cools the condenser at higher cooling rate. The compressor discharge pressure falls. After a fixed time, say 20 minutes, elapses from the start of compressor, the air in the evaporator exchanges heat in the storage area. Then, the circulation fan is rotated at a lower speed than normal speed for fixed time duration (say 40 minutes). The discharge pressure of the compressor lowers. ADVANTAGE - Miniaturises condenser. Reduces cost. Improves operational reliability of compressor.

Dialog eLink: Order File History 26/3,K/35 (Item 1 from file: 347) DIALOG(R)File 347: JAPIO

(c) 2008 JPO & JAPIO. All rights reserved.

09099009 \*\*Image available\*\*

### SUPERCRITICAL REFRIGERATING CYCLE

Pub. No.: 2007-139269 [JP 2007139269 A] Published: June 07, 2007 (20070607) Inventor:

ISHIKAWA HIROSHI

TSUBOKO TOSHIO Applicant: DENSO CORP Application No.: 2005-331596 [JP 2005331596]

Filed: November 16, 2005 (20051116)

## **ABSTRACT**

...cooling fan control of a high pressure side radiator in a supercritical refrigerating cycle.

SOLUTION: The supercritical refrigerating cycle is provided with the radiator 2 cooling a discharged refrigerant of a compressor 1, a cooling fan 2a sending outside air to the radiator 2, a pressure reducing means 4 for reducing a pressure of an outlet side refrigerant of the radiator 2, and controlling an opening such that a high pressure becomes a target pressure, and an evaporator 5 evaporating a low pressure refrigerant reduced in pressure by the pressure reducing means 4. The high pressure becomes a critical pressure or more of... ...difference between an actual heat dissipation state of the outlet side refrigerant of the radiator 2, and an ideal heat dissipation state determined by an outside air temperature, and an air amount of the cooling fan is controlled on the basis of the information value such that the difference is reduced.

COPYRIGHT: (C... Di01

COPYRIGHT: (C)2004, JPO Di01 Dialog eLink: Order File History 26/3, K/40 (Item 6 from file: 347)

DIALOG(R)File 347: JAPIO

(c) 2008 JPO & JAPIO. All rights reserved.

#### REFRIGERATOR

Pub. No.: 2001-272147 [JP 2001272147 A] Published: October 05, 2001

(20011005) Inventor: HIRANO AKIHIKO

**ANZAI HIDEMASA** 

HARADA CHO Applicant: HOSHIZAKI ELECTRIC CO LTD Application No.: 2001-008554 [JP 20018554] Filed: January 17, 2001 (20010117) Priority: 2000-007508 [JP 20007508], JP (Japan), January 17, 2000 (20000117)

#### **ABSTRACT**

...refrigerator while realizing energy saving of the refrigerator.

SOLUTION: When a temperature within a refrigerator is decreased down to its lower limit temperature, both a compressor and a cooling fan are turned off. However, the turning- off state of the cooling fan continues only for a predetermined time (t) and after this time, the cooling fan is turned on irrespective of the fact that the compressor is turned off. Just after stopping of operation of the compressor, liquid refrigerant of high temperature flows into the evaporator and there is a possibility that a temperature of the evaporator is increased fast. However, if the cooling fan is stopped, hot air in the refrigerator is not blown relatively, heat from the hot refrigerant is consumed as latent heat that resolves frost adhered to the evaporator and so a less amount of increasing in temperature of the evaporator is found. In addition, a wall in the refrigerator is not cooled unnecessarily, an amount of heat flowed into the refrigerator through the inner wall... Di01

#### ? ds

```
Set Items Description
S1 301391 FAN OR BLOWER
S2 202473 COMPRESSOR?
S3 70717 EVAPORATOR?
S4 1002727 COOL OR COOLS OR COOLING
S5 11344 S4(5N)S2
S6 1193 S1(10N)S5
S7 101124 (AMBIEN? OR OUTSIDE? OR SURROUND? OR ENVIRONMENT??) (5N) TEM
             PERATURE?
S8 52393 TEMPERATURE?(7N)(DIFFERENCE? OR DIFFERENTIAL?)
S9 394 S8(7N)S3
S10 3 S7 AND S9 AND S5
S11 4 S6 AND S9
S12 4 S11 NOT S10
S13 2 S1 AND S2 AND S3 AND S7 AND S9
S14 6 S12 OR S13
S15 6 S14 NOT S10
S16 9319 S1 AND S2 AND S4
S17 183 S16 AND S7 AND S3
S18 713101 ON AND OFF
S19 22 S17 AND S18
S20 21 S19 NOT S10 NOT S11 NOT S14
S21 259 S6 AND S3
S22 54 S21 AND (S7 OR S8 OR S18)
S23 51 S22 NOT S19
S24 51 S23 NOT S10
S25 47 S24 NOT S11
S26 47 S25 NOT S15
```

# ? show files

File 350:Derwent WPIX 1963-2008/UD=200846

(c) 2008 The Thomson Corporation
File 347:JAPIO Dec 1976-2007/Dec(Updated 080328)

(c) 2008 JPO & JAPIO